

**Practice B**

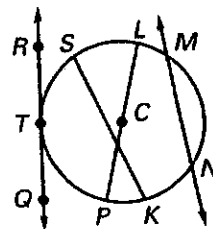
For use with pages 589–593

**Complete the statement.**

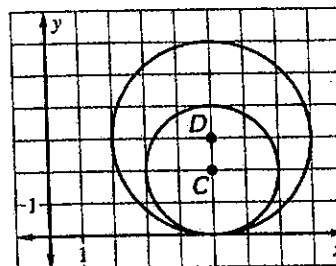
1. A ? is a line in the plane of a circle that intersects the circle in exactly one point, called a point of ?.
2. A ? is a segment whose endpoints are the center of a circle and a point on the circle.
3. A ? is a segment whose endpoints are points on a circle.
4. A diameter is a chord that passes through the ? of a circle.
5. A ? is a line that intersects a circle in two points.

**Identify each special part of the circle shown at the right.**

- |            |                       |
|------------|-----------------------|
| 6. chord   | 7. secant             |
| 8. tangent | 9. diameter           |
| 10. radius | 11. point of tangency |

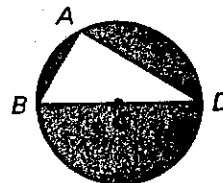
**In Exercises 12–16, use the diagram shown at the right.**

12. Name the coordinates of the center of each circle.
13. Name the coordinates of the intersection of the two circles.
14. Name the coordinates of the point of the tangency of each circle.
15. What is the length of the radius of each circle?
16. What is the length of the diameter of each circle?



One company's logo is a circle combined with a right triangle.  
Name the term that best describes the given segment or point.

17.  $C$
18.  $\overline{AB}$
19.  $\overline{CD}$
20.  $\overline{BD}$
21.  $\overline{AD}$



↑  
*C is the center*

# LESSON 11.2

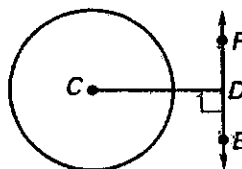
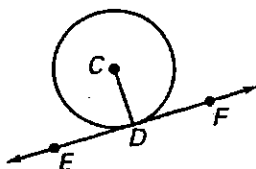
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## Practice B

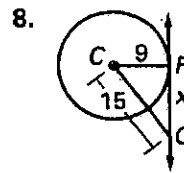
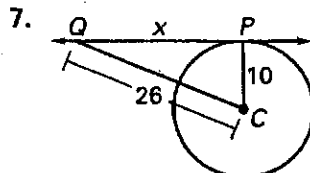
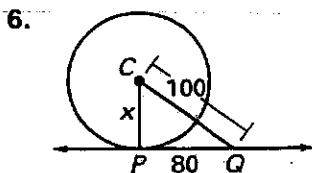
For use with pages 594–600

Complete the statement.

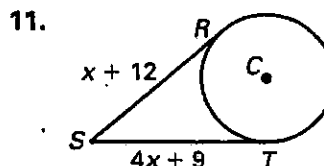
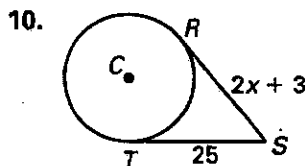
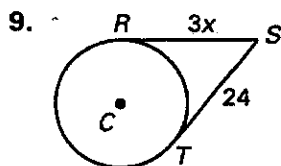
1. If a line is tangent to a circle, then it is perpendicular to the radius drawn at the point of tangency.
2. In a plane, if a line is perpendicular to a radius of a circle at its endpoint on the circle, then the line is tangent to the circle.
3. If two segments from the same point outside a circle are tangent to the circle, then they are congruent.
4.  $\overleftrightarrow{EF}$  is tangent to  $\odot C$  at point  $D$ . Find  $m\angle CDE$ .
5.  $\overleftrightarrow{EF} \perp \overleftrightarrow{CD}$ . Is  $\overleftrightarrow{EF}$  tangent to  $\odot C$ ? Explain.



$\overleftrightarrow{PQ}$  is tangent to  $\odot C$ . Find the value of  $x$ .



$\overleftrightarrow{SR}$  and  $\overleftrightarrow{ST}$  are tangent to  $\odot C$ . Find the value of  $x$ .

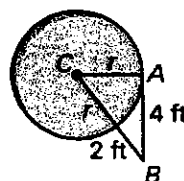


A child is standing at point  $B$ , 2 feet from the edge of a wading pool. The distance from point  $B$  to point  $A$  is 4 feet.

12. If the radius  $r$  of the pool is 4 feet, is  $\overleftrightarrow{AB}$  a tangent?

13. Find the radius  $r$  if  $\overleftrightarrow{AB}$  forms a tangent to the pool.

Note:  $BC = (r + 2)$



# LESSON 11.3

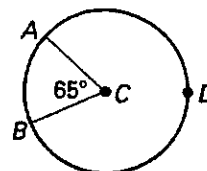
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## Practice B

For use with pages 601-607

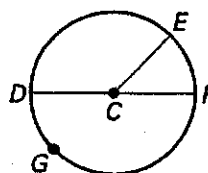
In Exercises 1 and 2, use the diagram at the right.

1. Name a minor arc and find its measure.
2. Name a major arc and find its measure.



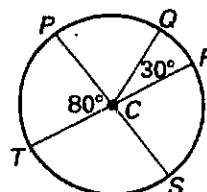
Determine whether the arc is a minor arc, a major arc, or a semicircle of  $\odot C$ .  $\overline{DF}$  is a diameter.

- |                    |                    |
|--------------------|--------------------|
| 3. $\widehat{EF}$  | 4. $\widehat{DEF}$ |
| 5. $\widehat{GDF}$ | 6. $\widehat{FG}$  |
| 7. $\widehat{EFD}$ | 8. $\widehat{DG}$  |



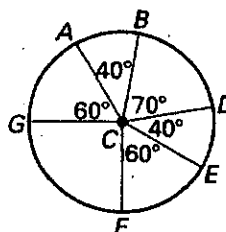
$\overline{PS}$  and  $\overline{TR}$  are diameters. Find the measure.

- |                      |                      |
|----------------------|----------------------|
| 9. $m\widehat{TS}$   | 10. $m\widehat{PQ}$  |
| 11. $m\widehat{TPQ}$ | 12. $m\widehat{TQR}$ |
| 13. $m\widehat{TRQ}$ | 14. $m\widehat{SRQ}$ |



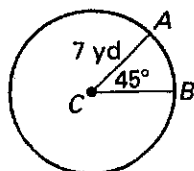
Find the measures of the arcs. Are the arcs congruent?

- |   |   |
|---|---|
| 15. $\widehat{AB}$ and $\widehat{DE}$   | 16. $\widehat{BD}$ and $\widehat{GF}$   |
| 17. $\widehat{GAB}$ and $\widehat{FED}$ | 18. $\widehat{AGF}$ and $\widehat{GFE}$ |

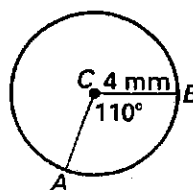


Find the length of  $\widehat{AB}$ . Round your answer to the nearest hundredth.

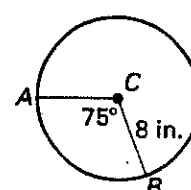
19.



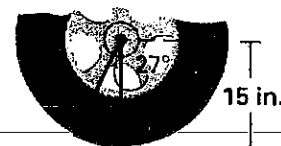
20.



21.



22. You have an older car. When you put the gearshift in park, free-play in the transmission allows the wheels to turn as much as  $27^\circ$ . Find the length of a  $27^\circ$  arc for a radius of 15 inches to determine how many inches your car can move after putting it into park. Round your answer to the nearest inch.



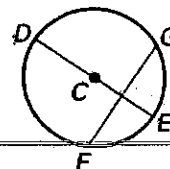
# Practice B

For use with pages 608–612

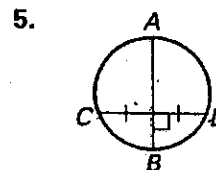
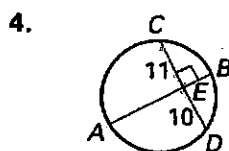
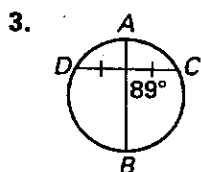
Complete the statement.

1. In  $\odot C$  at the right, diameter  $\overline{DE}$  is perpendicular to chord  $\overline{FG}$ .  
What pair of arcs are congruent by Theorem 11.4?

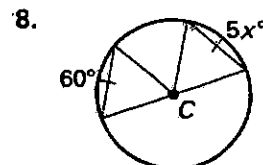
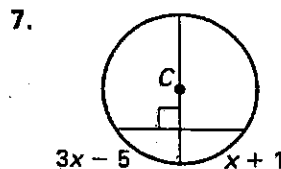
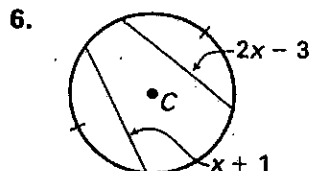
~~2.~~ In a circle, if chords  $\overline{AB}$  and  $\overline{DE}$  are perpendicular and bisect each other, what can you say about  $\overline{AB}$  and  $\overline{DE}$ ?



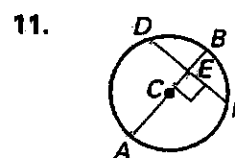
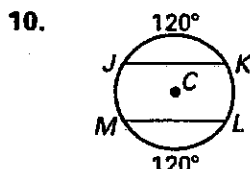
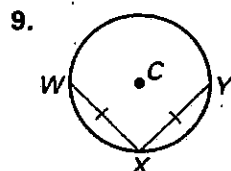
Determine whether  $\overline{AB}$  is a diameter of the circle.  
Explain your reasoning.



Find the value of  $x$ .



Name any congruent arcs or chords. State a theorem that justifies your answer.



The circular button shown has chords  $\overline{AB}$  and  $\overline{CE}$ .  
 $\overline{AB} \perp \overline{CE}$  and  $\overline{CD} \cong \overline{DE}$ .

- ~~12.~~ Identify a diameter of the circle.  
~~13.~~ Is  $\overline{CE}$  a diameter of the circle? Explain.  
~~14.~~ Name a pair of congruent arcs.

